REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1 and 7-12 remain in the application. Claims 3, 5, and 6 have been cancelled. Claims 1 and 8 have been amended herein. The amendments do not add new matter.

Claims 1, 3 and 5-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 5,879,519 to Seeser et al. (hereinafter Seeser) further in view of U.S. 3,884,787 to Kuehnle (hereinafter Kuehnle) and further in view of U.S. 6,306,265 to Fu et al. (hereinafter Fu). For the following reasons, the Examiner's rejection is traversed.

Seeser is directed to a multi-step sputter and reaction process and apparatus. Metal or silicon atoms are first sputtered from a solid target onto a substrate. Then the deposited layer is bombarded with reactive oxygen to oxidize the deposited layer (see Col 7, lines 10-40). Seeser uses a planar DC magnetron sputter device, for example, for applying material. At a first station, a magnetron deposits, for example silicon, then at the next station tantalum, for example, is deposited. Then oxidation occurs in a later step. Figs. 5 and 37A, for example, show an electrode powered by a single power supply.

Kuehnle is directed to a reactive sputtering process used for coating thin flexible substrates arranged in strips or elongate members in an atmosphere of inert

gas.

Fu is directed to a magnetron, especially advantageous for low-pressure plasma sputtering or sustained self-sputtering having reduced area, but full target coverage. The magnetron includes an outer pole face surrounding an inner pole face with a gap therebetween.

Regarding amended claim 1, even if the references were combined in the manner proposed by the Examiner, the claimed invention would not be taught or suggested. Further contributions would be necessary.

Amended claim 1 includes a plurality of more than two substantially identical magnetron electrodes arranged to form o*ne baffle-free combined process space* being supplied with *only one process gas mixture*. Seeser fails to teach or suggest these features.

As previously stated, in Seeser the substrate being treated is alternately positioned in a deposition zone and then positioned in a reaction zone, wherein the two zones comprise suitable electrodes and are "differentially pumped and atmospherically separated" (see Abstract of Seeser). These separated zones are achieved using a "partial pressure separation regime" (see Seeser col. 6, line 24) which means that a first process gas mixture includes little or no reactive gas and is supplied into the deposition zone and a second process mixture that includes a higher content of reactive gas is supplied to the reaction zone (Seeser uses two gas mixtures).

In Seeser, the specified atmospheres are restricted to the specified zones by equipping the electrodes with baffles. Referring specifically to Seeser, "In both cases, the sputter device (deposition zone) and the ion source device (reaction

zone) are enclosed in distinct partial pressure regimes or chamber regions (col 8, lines 9-12), wherein baffles 32 are used for effectively dividing the overall processing chamber into the named zones. (Col. 7, lines 62-63)

Seeser discloses one device embodiment in which deposition devices and reaction devices are the same, namely linear magnetron sputter devices 30 (col 8, lines 7-9, Figs. 4-5). However, these devices comprise baffles. The baffles are not only disclosed, but are necessary in Seeser's device for preventing the reactive gas from poisoning the targets of the deposition devices which would affect the sputtering steps in an unacceptable negative manner.

Applicant concludes that Seeser fails to teach or suggest forming o*ne baffle-free combined process space* being supplied with *only one process gas mixture*, as required. Kuehnle and Fu do nothing to cure these deficiencies in Seeser.

Additionally, Seeser does not teach or suggest a plurality of more than two substantially identical magnetron electrodes, *each being supplied with an AC voltage by its own power supply*, as required in claim 1. The paragraph in Seeser's column 25 to which the Examiner refers teaches an altered inverse linear magnetron ion gun device 40A which is useable in Seeser's device as a reaction device. This device comprises a filament constituting a thermionic electron emission device, which filament is connected to a "power supply arrangement 241 comprising an AC signal source" and "a power supply 243 for biasing". However, in Seeser, the named power supply arrangement supplies the filament, and not the electrode as required. Further, there is no disclosure defining the power supply arrangement as the one filament's own power supply (for economy reasons, one skilled in the art constructing the device would connect all identical filaments to the same power supply). Kuehnle

and Fu also do nothing to cure these deficiencies in Seeser.

Additionally, Seeser does not disclose gas supply lines being arranged between neighboring magnetron electrodes, as required in amended claim 1. The gas supply lines 34 in Fig. 5 of Seeser and the gas supply lines 57 in Fig. 6 of Seeser extend in front of the magnetron faces. Again, Kuenle and Fu do nothing to cure these deficiencies in Seeser.

Claims 7-12 depend directly or indirectly from claim 1 and are believed to be allowable at least for the reasons stated above.

Reconsideration and withdrawal of the rejection of claims 1 and 7-12 under 35 U.S.C. §103(a) over Seeser in view of Kuenle and Fu is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. FRR-16006.

Respectfully submitted,

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